

**LOWER LEY CREEK SUBSITE**  
**PRP NEXUS REPORT**  
**Solvents & Petroleum Services Inc.**

**October 14, 2014**

**Compiled by:**

**PALMERTON GROUP**  
A Division of GZA GeoEnvironmental, Inc.

## Executive Summary:

This summary report documents the waste types and waste-in contributions attributable to the Solvents and Petroleum Service Facility to the Lower Ley Creek Subsite (including the Old Ley Creek Channel), and provides a brief summary of site history and facts pertaining to Solvents and Petroleum Services' liability at the Lower Ley Creek Subsite. The report is a summary of data/evidence collected and produced by others. Data sources for the information presented in this document are summarized in the reference section, and select information supporting the conclusions reached in this report is included in Appendix A.

## Site History:

As described in the TAMS 1997 report, Solvents & Petroleum Service, Inc. (SPS) is located at 1405 Brewerton Road, Salina, NY. Ley Creek is located approximately 600 feet to the Northwest of SPS and the Old Ley Creek Channel (OLCC) is located along the northern property boundary. The location of the SPS facility is shown in Figure 1.

Beginning in the 1940s, the site was occupied by a gas station, car repair and car wash. In 1954, M.V. Whitaker relocated to the site and began delivering virgin solvents to local clients. Both the gas station and M.V. Whitaker existed at the site until the early 1970s, at which time the gas station was closed and the underground storage tanks (USTs) were removed. Whitaker's operations expanded to include Building 2 for solvent storage and were further expanded in 1979 to include the collection and storage of drummed spent solvents from existing customers. In 1980, SPS applied for status as a Treatment, Storage and Disposal Facility (TSDF) and Transporter of Hazardous Waste. SPS is a storage facility for hazardous wastes with no onsite processing other than aggregation of spent solvents for off-site transport. SPS was permitted in 1981 to operate a solid waste management facility from NYSDEC. SPS is also permitted under USEPA RCRA Part B (USEPA ID No. NYD013277-454) (TAMS, 1997 pg. 5).

SPS is a distributor of virgin organic and chlorinated solvents to industries in the Central New York area and also operate as a TSDF. Virgin solvents are stored in above-ground steel or stainless steel tanks, either in buildings or in open sided pavilions. Hazardous wastes are temporarily stored on-site in three areas prior to off-site disposal: a storage area for non-ignitable containerized wastes; a storage area for ignitable containerized waste; and four 5,000 gallon transfer tanks. The four 5,000 gallon tanks are used to store flammable waste liquid, waste trichloroethene (TCE), and waste 1,1,1-trichloroethane; all of which are classified as hazardous waste. The fourth tank is held in reserve for emergencies. The non-ignitable storage area has a capacity of 40 55-gallon drums; the ignitable storage area has a capacity of 20 55-gallon drums. All wastes are received by SPS in drums and are manually transferred by SPS personnel to the four 5,000 gallon waste storage tanks (TAMS, 1997 pg. 6&7). In addition, SPS has several trailers staged at the north end of the property for container storage. Areas not occupied by buildings or storage tanks have been covered by asphalt or concrete. The concrete slab on the western

portion of the property serves as a secondary containment pad which drains to a sump along the north side of the property.

When sufficient quantities of waste have accumulated, the material is shipped via a registered waste hauler to a USEPA and NYSDEC permitted recycler. All wastes shipped off-site are sent to reclamation facilities or fuel blending operations (TAMS, 1997 pg. 7).

## Site Investigations:

In 1993, O'Brien & Gere Engineers installed four monitoring wells and then in 1998, Environmental Products and Services installed a recovery well and a piezometer. Boring logs indicate that portions of the site are underlain by fill. Where fill material are absent, the subsurface deposits consist of silts and fine sands to a depth of approximately 20 feet below grade at the southern portion of the site and up to 30 feet below grade at the northern end of the site (Statement of Basis NYSDEC, 2004 pg. 3). The depth to groundwater on the SPS site has been measured at 4-5 feet below grade and groundwater on the site flows to the north and apparently discharges to the Old Ley Creek Channel.

Groundwater samples from the SPS site have been collected and analyzed since 1993. Historic analytical results indicate exceedances of chlorinated solvents (TCE, vinyl chloride, 1,2-DCE and 1,1-DCA) and petroleum compounds (benzene, toluene, ethylbenzene, and xylenes).

In January 1999, the facility conducted a pump test to evaluate the hydraulic properties of the aquifer in the vicinity of MW-4R and then subsequently submitted a RCRA Facility Investigation Report in June 1999.

## Known Discharges and Violations:

Historical records indicate there have been two spills of solvents reported at the SPS facility since 1985 that involved less than 100 gallons of solvents. Both spills were reported to NYSDEC and the spill numbers subsequently closed.

Groundwater monitoring in the 1990s identified aromatic hydrocarbons in the vicinity of the former gasoline station USTs. Also, analytical results from monitoring wells directly downgradient of the solvents management area had exceedances of chlorinated solvents (TCE, vinyl chloride, 1,2-DCE and 1,1-DCA). SPS did not specify the source or location of the identified contaminants in the groundwater. As a result of these identified contaminants, NYSDEC determined that RCRA corrective measures would be required to address the presence of hazardous wastes constituents beneath the facility which is described in greater detail below (Statement of Basis NYSDEC, 2004 pg. 6).

The USTs associated with the former gas station on the southern portion of the site were reportedly removed in the early 1970s when the station was closed. It is unlikely that confirmation samples were collected when the tanks were removed (TAMS, 1997 pg. 9).

During a trench excavation by Niagara Mohawk Power Corporation in 1994 on the SPS property, workers noted gasoline-contaminated soil in the vicinity of the former USTs (TAMS, 1997 pg. 9).

The SPS facility utilizes a septic system rather than the municipal sewer system. SPS did not provide analytical soil or groundwater in the vicinity of the septic system/leach field (TAMS, 1997 pg. 12).

## Ley Creek and Old Ley Creek Channel:

Ley Creek is located approximately 600 feet northwest of the SPS site. In the 1960s, Ley Creek was rerouted to reduce flooding. As a result, part of the old channel was abandoned and is now called the Old Ley Creek Channel (OLCC). OLCC borders the northern property line and now acts as a drainage ditch which conveys stormwater runoff from the SPS site to Ley Creek. SPS reported “that on occasion, Ley Creek backs up into the ditch” (TAMS, 1997 pg. 9). Based on groundwater sampling results and known groundwater flow, the VOC-impacted groundwater plume is located to the north of the tank farm, flowing to the north and discharging to OLCC (Figure 5, CHA report, 2001).

The SPS site is located adjacent to the OLCC site which is located west of the intersection of Factory Avenue and Wolf Street (State Route 11) in the Town of Salina, Onondaga County, New York. The approximately 3.5-acre OLCC site is within an overgrown and wooded area adjacent to the banks of the former Ley Creek Channel between Route 11 and Ley Creek (Figure 1). Based upon analysis of soil and sediment samples collected by the NYSDEC, the site was listed as a Class 2 Hazardous Waste Site in 1999. The listing package stated that “both the Old Ley Creek Channel sediments and subsurface soil in the parcel of land to the east of the channel contain hazardous waste levels of PCBs (up to 237 ppm in sediments and 373 ppm in subsurface soil).” The concentration of metals in sediments also exceeded the NYSDEC Fish and Wildlife Severe and Lowest Effect Levels (E.A. Engineering, 2010 pg. 1-1). Recently, NYSDEC and USEPA decided to address the Old Ley Creek Channel as part of the Lower Ley Creek Subsite rather than as a separate site.

Sampling efforts during the OLCC Remedial Investigation in 2010, indicate that low-level concentrations of VOCs (less than their respective Levels of Protection) were detected at six of the eight sediment sampling locations (SED-01, -02, -03, -04, -05, and -12). Each of these locations is within the Old Ley Creek Channel. Vinyl chloride was detected at a concentration greater than the Human Health Bioaccumulation standard of .015 mg/kg at SED-03 (0-6, 6-12, and 12-24 in.) at 4.7, 4.6 and 3.8 mg/kg, respectively. SED-03 is located within the Old Ley Creek Channel approximately 50 feet downstream from the outfall of the SPS treatment system (E.A. Engineering, 2010 pg. 3-9).

Groundwater analytical data from sampling conducted by CHA in 2009 as part of the Town of Salina Investigation suggests that the study area between Old Ley Creek and Ley Creek was not impacted by SVOCs, PCBs, or pesticides, but VOCs were found to be at a concentration that exceeded the groundwater standards (E.A. Engineering, 2010 pg. 1-5).

Based on groundwater sampling results collected for the RCRA Facility Investigation report, the approximate location of the VOC groundwater plume is to the north of the tank farm, flowing to the north and discharging to Old Ley Creek Channel (Figure 5, CHA report, 2001).

## Remedial Activities:

In August 2001, SPS submitted a Corrective Measures Study (CMS) that evaluated several remedial measures that had the potential to address groundwater contamination at the facility which included: source removal, monitored natural attenuation, groundwater pump and treat, in-situ use of hydrogen-releasing compound and permeable reactive barrier. The CMS identified monitored natural attenuation (MNR) as the preferred remedial alternative for the site because “it is easy to implement, it is cost-effective, it provides a permanent remedy, and it ultimately reduces toxicity mobility and volume of contaminants”. The NYSDEC determined that further characterization of site conditions was necessary to support SPS’s recommendation to use MNR as the Corrective Measure to address the groundwater contamination.

Additional groundwater data was collected in 2002 to address the data needs NYSDEC identified. Based on the data collected for 10 years, NYSDEC determined that the plumes of groundwater contamination are “essentially stable” and active remediation of the facility was not required at the time. The DEC also stated that Monitored Natural Attenuation remains an appropriate remedy, SPS must implement a monitoring and response program.

NYSDEC developed a 6 NYCRR Part 373-2 Permit Module that requires SPS to implement the proposed remedy which included a Performance Monitoring Program to evaluate the effectiveness of the Corrective Measures which includes semi-annual monitoring for BTEX compounds and VOCs.

As of 2006, overall concentrations of BTEX compounds, 1,2- DCE and vinyl chloride have trended downward, supporting that natural attenuation is a viable remedy for this site.

## Conclusions:

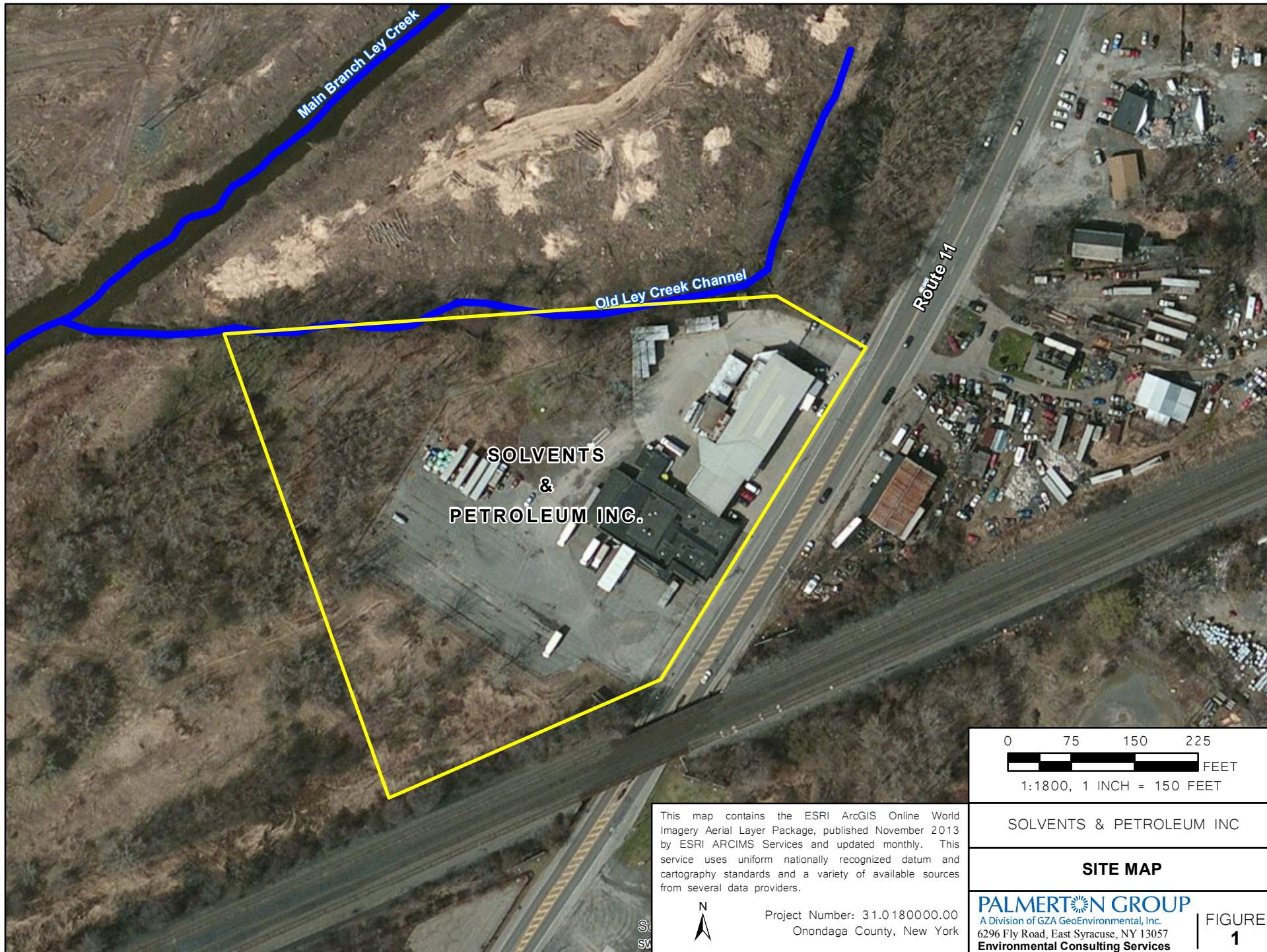
Hazardous substances for which there have been documented releases from the Solvents and Petroleum Services Facility into the Ley Creek Watershed include, but are not limited to: chlorinated solvents (TCE, vinyl chloride, 1,2-DCE and 1,1-DCA) and petroleum compounds ( benzene, toluene, ethylbenzene, and xylenes). Based on available evidence, SPS’s nexus to Lower Ley Creek includes: discharges, spills, and releases of the aforementioned hazardous substances from the Facility into soil, sediment, groundwater, and drainage ditches discharging into Ley Creek. Available sediment data collected within the Old Ley Creek Channel has identified the presence of chlorinated solvents which have been documented at the SPS Facility.

Based on the prior reports and studies, Solvents and Petroleum Services, should be given notice by the USEPA of its potential liability at the Lower Ley Creek Subsite and included in any future negotiations between the agency and PRPs.

### References:

Information found in this report has been summarized from the Solvents and Petroleum Service, Inc. Site Summary Report (SSR) prepared by TAMS in 1997, Environmental Investigation Reports by CHA, O'Brien & Gere, facility information publicly available and select reports and other records obtained from USEPA, Onondaga County and NYSDEC. The information found in the SSR Report was originally obtained from the CERCLA Section 104(e) responses of SPS Site ID 249 as well as supplemental information from the NYSDEC.





0 75 150 225  
FEET  
1:1800, 1 INCH = 150 FEET

SOLVENTS & PETROLEUM INC

**SITE MAP**

This map contains the ESRI ArcGIS Online World Imagery Aerial Layer Package, published November 2013 by ESRI ARCIMS Services and updated monthly. This service uses uniform nationally recognized datum and cartography standards and a variety of available sources from several data providers.



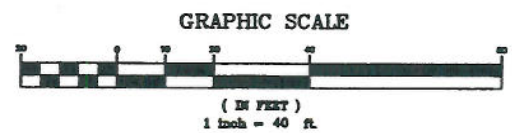
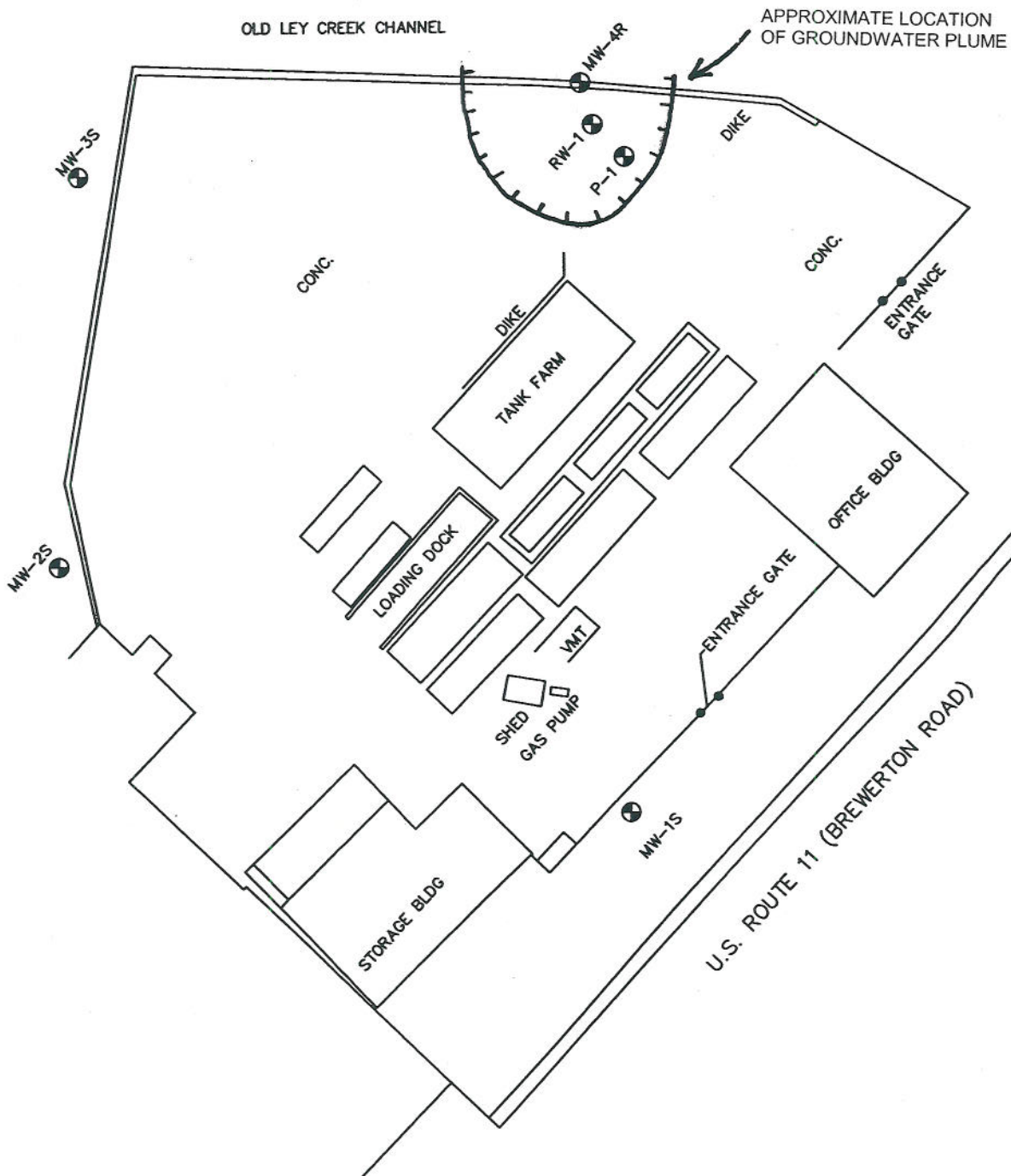
Project Number: 31.0180000.00  
Onondaga County, New York

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Environmental Consulting Services

FIGURE  
**1**



# TOWN OF SALINA LANDFILL



**CLOUGH, HARBOUR & ASSOCIATES LLP**  
ENGINEERS, SURVEYORS, PLANNERS  
& LANDSCAPE ARCHITECTS

441 SOUTH SALINA ST. SYRACUSE, NEW YORK 13202

SCALE: 1"=40'

DATE: JULY 2001

FIGURE 5  
APPROX. LOCATION OF GROUNDWATER PLUME  
SOLVENTS & PETROLEUM SERVICES INC.  
TOWN OF SALINA, NEW YORK